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10/576,871	04/21/2006	Shin Kikuchi	4496-14	4790

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EXAMINER	
DAGER, JONATHAN M	
ART UNIT	**PAPER NUMBER**
3663	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,871	KIKUCHI ET AL.	
	Examiner	Art Unit	
	JONATHAN M. DAGER	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) *14-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13, 23-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04 September 2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments, see page 22, filed 25 August 2008, with respect to the rejection of claim 7 under 35 U.S.C. 112, 2nd paragraph, have been fully considered and are persuasive. Therefore, the rejection of claim 7 under 35 U.S.C. 112, 2nd paragraph, has been withdrawn.

Applicant's arguments, see pages 22-25, filed 25 August 2008, with respect to the rejection of claims 1, 5, 6, 9, 11, and 12 under 35 U.S.C. 102(e), have been fully considered and are persuasive. Therefore, the rejection of claims 1, 5, 6, 9, 11, and 12 under 35 U.S.C. 102(e), have been withdrawn.

Subsequently, the prior art rejections of all claims dependent therefrom are withdrawn.

However, upon further consideration, new grounds of rejection are warranted (see below).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1- 13 are replete with "means" terminology. This language is supported throughout the embodiment, and the claims are treated under 35 USC 112, sixth paragraph. However, the specification fails to set forth the exact structure, or equivalent thereof, that corresponds to the claimed function.

"If the specification is not clear as to the structure that the patentee intends to correspond to the claimed function, then the patentee has not paid the price for use of the convenience of broad claiming afforded by 112, sixth paragraph but is rather attempting to claim in functional terms unbounded by any reference to structure in the specification. If one employs means-plus-function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112." See Biomedino, LLC v Waters Technologies Corporation (Fed Cir, 2006-1350, 6/18/2007).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-13, 23, 24, 26, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Robotham (US 2002/0015042).

Regarding claims 1, 2, 5, 6, 9, 10, 12, 13, 23, and 24, as best understood, Robotham has disclosed an invention which relates to the display of visual content on a client device using server-side rasterization of visual content. Visual content is rendered on a server system, transformed into bitmaps compatible with the display attributes of a client device, and transmitted for display on the client device. The invention allows the server to perform, in effect, as a remote browser for displaying Web pages, e-mail, e-mail attachments, electronic document and forms, database queries and results, drawings, presentations, and images at the client device. The approach is "remote" because the server does the rendering and the client provides the interface; "multi-level" because rendered visual content is represented as a multi-level set of raster representations; and constitutes a "browsing system" because the client and server share data about the source visual content element being browsed, and the client performs a specific browsing function assisted by the server (abstract).

Thus, Robotham discloses that in response to a query by a client device, the server will provide content based on the display attributes of the client device.

Robotham discloses that the invention is capable of handling virtually any desktop page (in both raster and text mode, with a multi-level interface shared between raster and text mode) and simultaneously handle any page designed for a tiny screen. The invention can essentially extract any part of a desktop page and convert it into a representation suitable for cell phone displays (para 0029).

Thus, the mobile phone terminal contains a display screen on which information is displayed.

Robotham discloses a computer network supporting the exchange of information includes at least two computers: a server 22 and a client 24 (para 0058). A server 22 includes a processor 2, a server memory 4, and a mass storage device 6. These components are in communication with each other through a communications bus, such as a Peripheral Component Interconnect (PCI) bus, an Accelerated Graphics Port (AGP) bus, or some other standard or proprietary bus. An input/output (I/O) device, such as a modem, an Ethernet adapter, or a network interface card (NIC), also in communication with the bus, provides for the server's 22 exchange of information with other external devices, such as a client 24 (para 0059)

Thus, Robotham discloses a server with components capable of the functions those claimed.

The representative client 24, shown in FIG. 1, includes a processor 3, a memory 9, executable instructions defining a user interface 11, and a display 5. The client components are also in communication with one another through a local communications bus, similar in concept to the server communications bus. The client 24 processor 3 and memory 9 are also similar to those on the server 22, and client 24 can optionally include a mass storage device. A client display 5, such as a cathode ray tube, or a flat-panel display, allows the user to view visual content. Clients 24 such as portable computers, PDAs, and wireless phones, typically provide a flat-panel display 5, such as a liquid crystal display (LCD). When operated, the display 5 defines one or more client viewports 16, representing regions of the display 5 where different visual-information fields can be presented. In addition to an operating system and other programmed instructions, the client memory 7 contains regions dedicated to a user interface 9 and a client display surface 26 (para 0062-0063).

Thus, Robotham discloses a client side device with components equivalent to those claimed.

The nature of bitmap 14--that is, the manner in which content elements are rasterized 15 depends on the known or expected client display attributes. The bitmap 14 is compatible with the expected display attributes 44 if, for example, the bitmap 14 has a tonal range no greater than the expected client tonal range and the bitmap has a pixel format that can be readily interpreted and/or directly used by the client device 24. Conversion to a suitable pixel format may be accomplished, for example, using a color lookup table or similar expedient (para 0068). If the client 24 must perform pixel transforms or image transform operations that require operations across multiple input (i.e., server-provided) pixels to generate each client-display pixel, then the pixel format is not considered to be compatible. A bitmap 14 can be compatible even if it has a different pixel resolution or different pixel aspect ratio from the expected client display attributes. Nonetheless, to minimize processing at the client side, the pixel transforms performed at the server 22 can optionally use the expected client display pixel resolution and aspect ratio as input parameters in order to generate display-ready data for the client (para 0069).

Thus, the server utilizes the mobile terminal provided display resolution to provide image data.

The client 24 responds to any user interface actions taken by the user related to the rasterized visual content (e.g., selection of a display item using a pointing device), and determines whether to transmit notification of the user's action to the server 22 for further processing. The server 22 interprets such events as user interface actions on its own proxy display surface 28 and responds by generating the appropriate events and/or actions on its

display surface 28, which is transmitted to client 24 for display thereon. Consequently, event processing occurs cyclically, with events caused by user actions transmitted to the server, and appropriately updated display information provided to the client (para 0073).

Thus, the terminal contains stored image data constituting specific graphic symbols and arranged on the display, and a symbol image data transmission request information transmitting means, as well as means for receiving the symbol image data from the server.

Robotham discloses that the expected client display attributes 44 can be maintained at the server 22, and determined based on the client identification information. Alternatively, the expected client display attributes 44 can be transmitted by the client 24, saved at the server 22 or mass storage device 6 (see FIG. 1) in association with the client identification information 42, thereby facilitating future lookup based on the identification information 42. In other alternative embodiments, the expected client display attributes 44 are transmitted to the server 22 each time the client 24 establishes a communications session with the server 22 or updated by the client 24 when attributes of the allocated client display surface 26 change (para 0134).

Thus, the invention of Robotham discloses that the server side is capable receiving the symbol image data transmission request, process the request, discriminate the symbol image data transmitted to the mobile phone terminal on the basis of the resolution related information received, and transmit the discriminated data in correspondence with the resolution of the information display screen of the mobile phone.

Regarding claims 3, 7, 8, 11, as best understood, in addition to what is cited above, Robotham discloses that the server 22 interprets such events as user interface actions on its own

proxy display surface 28 and responds by generating the appropriate events and/or actions on its display surface 28, which is transmitted to client 24 for display thereon. Consequently, event processing occurs cyclically, with events caused by user actions transmitted to the server, and appropriately updated display information provided to the client (para 0073). Mass storage device 6, such as a magnetic or optical disk drive, or a magnetic tape drive, stores large amounts of information that can be updated, maintained, and served upon request to other systems, such as a client 24 (para 0060). In embodiments performing functions that require client/server communications, such as requests for rendered visual content, bookmark refreshes, or dynamic selections, the client/server communications can be modeled as requests/responses referencing an XML representation of the visual content element 10. In these embodiments, the client 24 and server 22 share portions of a common data representation model for the referenced visual content element 10. The server 22 provides updates, such as providing a selected region of a detail representation or providing a text-related transcoding for a selected region, and the client processes the updates as changes to its XML model of the referenced visual content element 10 (para 0120). Selected portions of user data 52 can be selectively changed or made unavailable during the remote browsing session. This allows the user to temporarily change its identity and to selectively make certain user data 52 available when accessing or updating selected visual content elements 10 and their constituent components 12 (para 0138). Robotham lastly discloses that a further reduction in communication requirements can be obtained by coordinating the caching of selection regions between the server 22 and client 24. The client 24 transmits a timestamp (previously supplied by the server) for its cached selection region 124 when requesting a refresh. The server 22 computes the pixel differences between the newly rendered

selection region and its corresponding time-stamped cached bitmap representation of the same selection region. If a difference representation for the selection region can be encoded more compactly than the complete pixels of the selection region, this difference representation can be transmitted to the client 24 along with an updated time-stamp. In selection regions where only a small portion of the bitmap changes, the communications savings can be considerable (para 0218).

Regarding claims 26 and 27, Robotham discloses that in one embodiment of the present invention, adaptive rendering techniques can be used to combine server-side rendering, summary extractions, text-related transcoding and client-side rendering of small screen content. Small screen content is content specifically formatted for layout on a small screen (typically 320.times.240 or less in pixel dimensions). Examples of small screen content formats include the Wireless Markup Language (WML), Compact HTML (as used in the I-mode system), and the proposed XHTML Basic standard. The server 22 determines if the client 24 can support client-side rendering of a small screen format. If the client 24 does support client-side rendering of small screen format, then adaptive rendering can be used to send content in the supported small screen format(s) to the client 24 for client-side rendering (para 0526).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robotham, as applied to claims 1 above, and further in view of Pechatnikov.

Regarding claim 4, as best understood, Robotham does not disclose map information being requested by the terminal device, or that the information is received from the server. It is noted that Robotham does discloses symbol images and location information on bitmap information.

Petchatnikov teaches a method for displaying a map on a mobile client device includes storing map data on a server, the map data defining objects appearing in the map and comprising vector coordinates of the objects in a predetermined frame of reference. Upon receiving at the server a request from the client device to provide a map of an area along a route on which a user of the client device is to travel, a heading of travel of the user on the route is determined, and the vector coordinates are transformed on the server into a rotated frame of reference, which is approximately aligned with the heading of the user. A portion of the map data corresponding to the area along the route and including the transformed vector coordinates is downloaded to the client device from the server. An image of the area of the map in the rotated frame of reference is rendered on the client device, based on the downloaded map data (abstract).

4. Petchatnikov teaches that map data is stored on the server and downloaded to the client in the form of vector data. In response to a route request from the client, the server determines a route from a starting point to a destination specified by the client. Typically, the starting point is the client's current position, while the destination is a map location or point of interest specified by the client. The route computed by the server comprises a sequence of route segments, each of

which has a respective length and heading angle. The server then defines a corridor map, made up of a sequence of map segments, each containing one or more of the route segments. The zoom level and orientation of each map segment are determined by the length and heading angle of the respective route segment, so that in general, different segments have different zoom levels and heading angles. The map segments are downloaded from the server to the client device (in the form of vector data) in succession, as the client travels along the route (para 0008).

Thus, Petchatnikov has taught an invention similar to Robotham, in that a client device (cell phone, PDA, etc.), can be used to display information on a screen. The user can request data about certain symbols or images from the server, and the server can reply with the data stored that would be tailored to the user's device. Petchatnikov cures the deficiency of Robotham, with respect to claim 4, in that the invention provides a specific use for client/server data supply, i.e. a map information transmitting and receiving means, location information, symbol image information, etc.

All of the components and methods are known in the above prior art. The only difference is a combination of these elements into a single device.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the mapping/navigation functions of Pechatnikov onto the base device of Robotham, since both systems could be used in combination to produce the predictable result of providing a data request from a mobile device to a server regarding symbol images and location information, as well as map information, and receiving the information from a server.

5. Combining prior art elements according to known methods to yield predictable results is a rationale to support a conclusion of obviousness. See MPEP 2143(a).

6. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robotham, as applied to claims 24 above, and further in view of Kurumisawa (US 2004/0080516).

Regarding claim 25, as best understood, the invention of Robotham is drawn to providing data to a mobile device with respect to the mobile device's request and display parameters. Robotham does not explicitly disclose that the resolution information of the display comprises one or both of a horizontal or vertical dot number, but is rather drawn to pixelated display screen.

7. Kurumisawa teaches a mobile terminal display device 212 may be a light and thin display device, such as a LCD (liquid crystal display) and displays image data in a display area. The display device 212 can display a high resolution image where the number of pixels in horizontal and vertical directions is, for example, 240.times.320 dots (para 0041).

Both inventions are drawn toward resolution display in mobile devices. All of the components and methods are known in the above prior art. The only difference is a combination of these elements into a single device.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the dot resolution capability of Kurumisawa onto the base device of Robotham, since both systems could be used in combination to produce the predictable result of providing a mobile device information from a request, tailored to adapt to the best resolution based on the mobile device's display characteristics.

Combining prior art elements according to known methods to yield predictable results is a rationale to support a conclusion of obviousness. See MPEP 2143(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JONATHAN M. DAGER whose telephone number is (571)270-1332. The examiner can normally be reached on 0830-1800 (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JD
06 December 2008

/Jack W. Keith/
Supervisory Patent Examiner, Art Unit 3663